

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

- 1-4. (canceled).
5. (previously presented): A video processing device comprising:
 - correction amount obtaining means for obtaining a correction amount from sequentially applied moving images,
 - image correcting means for subjecting an input moving image to quality improving correction processing based on a correction amount obtained by said correction amount obtaining means,
 - image input means for obtaining a frame image from sequentially applied moving images and outputting the image to said correction amount obtaining means, wherein said correction amount obtaining means obtains said correction amount from said frame image and said image correcting means subjects said frame image to quality improving correction processing based on said correction amount,
 - lapse of fixed time detecting means for counting the number of frames from a frame image whose said correction amount is lastly updated to a current frame image to determine whether the number of frames exceeds a fixed value, and
 - correction amount update determining means for giving an instruction to update said correction amount when said lapse of fixed time detecting means determines that a fixed time has elapsed.
6. (currently amended): A video processing device comprising:
 - correction amount obtaining means for obtaining a correction amount from sequentially applied moving images,

image correcting means for subjecting an input moving image to quality improving correction processing based on a correction amount obtained by said correction amount obtaining means,

image input means for obtaining a frame image from sequentially applied moving images and outputting the image to said correction amount obtaining means, wherein said correction amount obtaining means obtains said correction amount from said frame image and said image correcting means subjects said frame image to quality improving correction processing based on said correction amount, and

detecting means for detecting change in an image quality of said moving image by comparing feature amounts of frame images, and correction amount update determining means for updating said correction amount when said change is detected wherein said update amount is limited to said correction amount when said change is not detected.

7. (previously presented): A video processing device comprising:

correction amount obtaining means for obtaining a correction amount from sequentially applied moving images,

image correcting means for subjecting an input moving image to quality improving correction processing based on a correction amount obtained by said correction amount obtaining means,

image input means for obtaining a frame image from sequentially applied moving images and outputting the image to said correction amount obtaining means, wherein said correction amount obtaining means obtains said correction amount from said frame image and said image correcting means subjects said frame image to quality improving correction processing based on said correction amount,

lapse of fixed time detecting means for counting the number of frames from a frame image whose said correction amount is lastly updated to a current frame image to determine whether the number of frames exceeds a fixed value,

cut point detecting means for detecting a cut point indicative of switching of a scene in said moving image based on a change of a feature amount obtained from each frame image, and

correction amount update determining means for giving an instruction to update said correction amount either when detection of a lapse of a fixed time is made by said lapse of fixed time detecting means or when detection of said cut point is made by said cut point detecting means.

8-13. (canceled).

14. (previously presented): The video processing device as set forth in claim 6, wherein

said detecting means is structured to consider a result of comparison between color histograms of said frame images generated based on color information of pixels of said moving image which is conducted on a frame basis as a feature amount and detect a cut point of said moving image based on a change of the feature amount.

15. (previously presented): A video processing device comprising:
correction amount obtaining means for obtaining a correction amount from sequentially applied moving images,

image correcting means for subjecting an input moving image to quality improving correction processing based on a correction amount obtained by said correction amount obtaining means,

image input means for obtaining a frame image from sequentially applied moving images and outputting the image to said correction amount obtaining means, wherein said correction amount obtaining means obtains said correction amount from said frame image and said image correcting means subjects said frame image to quality improving correction processing based on said correction amount, and

cut point detecting means for detecting a cut point indicative of switching of a scene in said moving image based on a change of a feature amount obtained from each frame image, and correction amount update determining means for giving an instruction to update said correction amount when said cut point detecting means detects said cut point,

wherein said cut point detecting means is structured to consider a result of comparison of a color histogram generated based on color information of each pixel of said moving image which is conducted on a frame basis as a feature amount and detect a cut point of said moving image based on a change of the feature amount, and

wherein said cut point detecting means is structured to, at the time of generating said color histogram from said moving image, generate said color histogram after thinning out the image at fixed intervals.

16. (currently amended): A video processing device comprising:
image input means for obtaining a frame image from sequentially applied moving images, and
detecting means for detecting change in an image quality of said moving image by comparing feature amounts of frame images, and
correction amount update determining means for updating said correction amount when said change is detected wherein said update amount is limited to said correction amount when said change is not detected.

17. (previously presented): The video processing device as set forth in claim 16, wherein
said detecting means is structured to consider a result of comparison between color histograms of said frame images generated based on color information of pixels of said moving image which is conducted on a frame basis as a feature amount and detect a cut point of said moving image based on a change of the feature amount.

18. (previously presented): A video processing device comprising:
image input means for obtaining a frame image from sequentially applied moving images, and
cut point detecting means for detecting a cut point indicative of switching of a scene in said moving image based on a change of a feature amount obtained from each frame image,

wherein said cut point detecting means is structured to consider a result of comparison of a color histogram generated based on color information of each pixel of said moving image which is conducted on a frame basis as a feature amount and detect a cut point of said moving image based on a change of the feature amount, and

wherein said cut point detecting means is structured to, at the time of generating said color histogram from said moving image, generate said color histogram after thinning out the image at fixed intervals.

19-30. (canceled).

31. (previously presented): A video processing method comprising the steps of:
obtaining a correction amount from sequentially applied moving images,
conducting quality improving correction with respect to said applied moving image based on the obtained correction amount, and

checking said input moving image on a frame basis and when a cut point indicative of switching of a scene in said input moving image is detected, updating a correction amount,

at the detection of said cut point, considering a result of comparison of a color histogram generated based on color information of each pixel of said moving image which is conducted on a frame basis as a feature amount and detecting a cut point of the moving image based on a change of the feature amount, and

when detecting said cut point, at the time of generating said color histogram from said frame image, generating said color histogram after thinning out the image at fixed intervals.

32. (canceled).

33. (currently amended): A video processing method comprising the steps of:
obtaining a frame image from sequentially applied moving images, and
detecting change in an image quality of said moving image by comparing feature amounts of frame images, and

updating said correction amount when said change is detected wherein said update amount is limited to said correction amount when said change is not detected.

34. (previously presented): The video processing method as set forth in claim 33, wherein

at said detecting step, a result of comparison between color histograms of said frame images generated based on color information of pixels of said moving image which is conducted on a frame basis is considered as a feature amount and a cut point of said moving image is detected based on a change of the feature amount.

35. (previously presented): A video processing method comprising the steps of:
obtaining a frame image from sequentially applied moving images, and
detecting a cut point indicative of switching of a scene in said moving image based on a change of a feature amount obtained from each frame image,

wherein at said cut point detecting step, a result of comparison of a color histogram generated based on color information of each pixel of said moving image which is conducted on a frame basis is considered as a feature amount and a cut point of said moving image is detected based on a change of the feature amount, and

wherein at said cut point detecting step, at the time of generating said color histogram from said moving image, said color histogram is generated after thinning out the image at fixed intervals.

36. (canceled).

37. (canceled).

38. (currently amended): A computer readable storage medium for storing a video processing program for controlling a computer to execute a video processing method, wherein said video processing method comprising program ~~comprises~~ the functions of:

obtaining a frame image from sequentially applied moving images, and
detecting change in an image quality of said input moving image, and
updating said correction amount when said change is detected wherein said update amount is limited to said correction amount when said change is not detected.

39. (canceled).

40. (canceled).

41. (previously presented): A video processing method comprising the steps of:
a correction amount obtaining step of obtaining a correction amount from sequentially applied moving images,

an image correcting step of subjecting an input moving image to quality improving correction processing based on a correction amount obtained by said correction amount obtaining step,

an image input step of obtaining said a frame image from sequentially applied moving images and outputting the image to said correction amount obtaining step, wherein said correction amount obtaining step obtains said correction amount from said frame image and said image correcting step subjects said frame image to quality improving correction processing based on said correction amount,

lapse of fixed time detecting step of counting the number of frames from a frame image whose said correction amount is lastly updated to a current frame image to determine whether the number of frames exceeds a fixed value, and

correction amount update determining step of giving an instruction to update said correction amount when said lapse of fixed time detecting step determines that a fixed time has elapsed.

42. (previously presented): A video processing method comprising the steps of:
correction amount obtaining step of obtaining a correction amount from sequentially applied moving images,

image correcting step of subjecting an input moving image to quality improving correction processing based on a correction amount obtained by said correction amount obtaining step,

image input step of obtaining a frame image from sequentially applied moving images and outputting the image to said correction amount obtaining step, wherein said correction amount obtaining step obtains said correction amount from said frame image and said image

correcting step subjects said frame image to quality improving correction processing based on said correction amount,

lapse of fixed time detecting step of counting the number of frames from a frame image whose said correction amount is lastly updated to a current frame image to determine whether the number of frames exceeds a fixed value,

cut point detecting step of detecting a cut point indicative of switching of a scene in said moving image based on a change of a feature amount obtained from each frame image, and

correction amount update determining step of giving an instruction to update said correction amount either when detection of a lapse of a fixed time is made by said lapse of fixed time detecting step or when detection of said cut point is made by said cut point detecting step.

43. (currently amended): A video processing method comprising the steps of:

a correction amount obtaining step of obtaining a correction amount from sequentially applied moving images,

an image correcting step of subjecting an input moving image to quality improving correction processing based on a correction amount obtained by said correction amount obtaining step,

an image input step of obtaining a frame image from sequentially applied moving images and outputting the image to said correction amount obtaining step, wherein at said correction amount obtaining step, obtaining said correction amount from said frame image and, at said image correcting step, subjecting said frame image to quality improving correction processing based on said correction amount, and

a detecting step of detecting change in an image quality of said moving image by comparing feature amounts of said frame images, and correction amount update determining step of updating said correction amount when said change is detected wherein said update amount is limited to said correction amount when said change is not detected.

44. (currently amended): A computer readable storage medium for storing a video processing program for controlling a computer to execute a video processing method, wherein said video processing method comprising ~~program comprises~~ the functions of:

a correction amount obtaining function of obtaining a correction amount from sequentially applied moving images,

an image correcting function of subjecting an input moving image to quality improving correction processing based on a correction amount obtained by said correction amount obtaining function,

an image input function of obtaining a frame image from sequentially applied moving images and outputting the image to said correction amount obtaining function, wherein at said correction amount obtaining function, obtaining said correction amount from said frame image and, at said image correcting function, subjecting said frame image to quality improving correction processing based on said correction amount, and

a detecting function of detecting change in an image quality of said moving image by comparing feature amounts of said frame images, and correction amount update determining function of updating said correction amount when said change is detected wherein said update amount is limited when said change is not detected.

45. (currently amended): A video processing device comprising:

correction amount obtaining means for obtaining a correction amount from sequentially applied moving images,

an image correcting means for subjecting an input moving image to quality improving correction processing based on a correction amount obtained by said correction amount obtaining means,

an image input means for obtaining a frame image from sequentially applied moving images and outputting the image to said correction amount obtaining means, wherein said correction amount obtaining means obtains said correction amount from said frame image and said image correcting means subjects said frame image to quality improving correction processing based on said correction amount, and

a detecting means for detecting change in an image quality of said input moving image, and

a correction amount update determining means for updating said correction amount when said change is detected wherein said update amount is limited to said correction amount when said change is not detected.

46. (previously presented): The video processing device as set forth in claim 45, wherein
said changing in an image quality is caused by video sources or video shooting conditions.

47. (currently amended): A video processing method comprising the steps of:
a correction amount obtaining step of obtaining a correction amount from sequentially applied moving images,
an image correcting step of subjecting an input moving image to quality improving correction processing based on a correction amount obtained by said correction amount obtaining step,
an image input step of obtaining a frame image from sequentially applied moving images and outputting the image to said correction amount obtaining step, wherein at said correction amount obtaining step, obtaining said correction amount from said frame image and, at said image correcting step, subjecting said frame image to quality improving correction processing based on said correction amount, and
a detecting step of detecting change in an image quality of said input moving image, and
a correction amount update determining step of updating said correction amount when said change is detected wherein said update amount is limited to said correction amount when said change is not detected.

48. (previously presented): The video processing method as set forth in claim 47, wherein said changing in an image quality is caused by video sources or video shooting conditions.